

# NEURODIVERSITY

*Embracing Human Differences*

# AGENDA

- What is neurodiversity?
- What does neurodiversity look like?
- Why is neurodiversity important?
- Benefits of neurodiversity.
- A different perspective on disability.
- Building neuro-inclusive society.
- Q&A





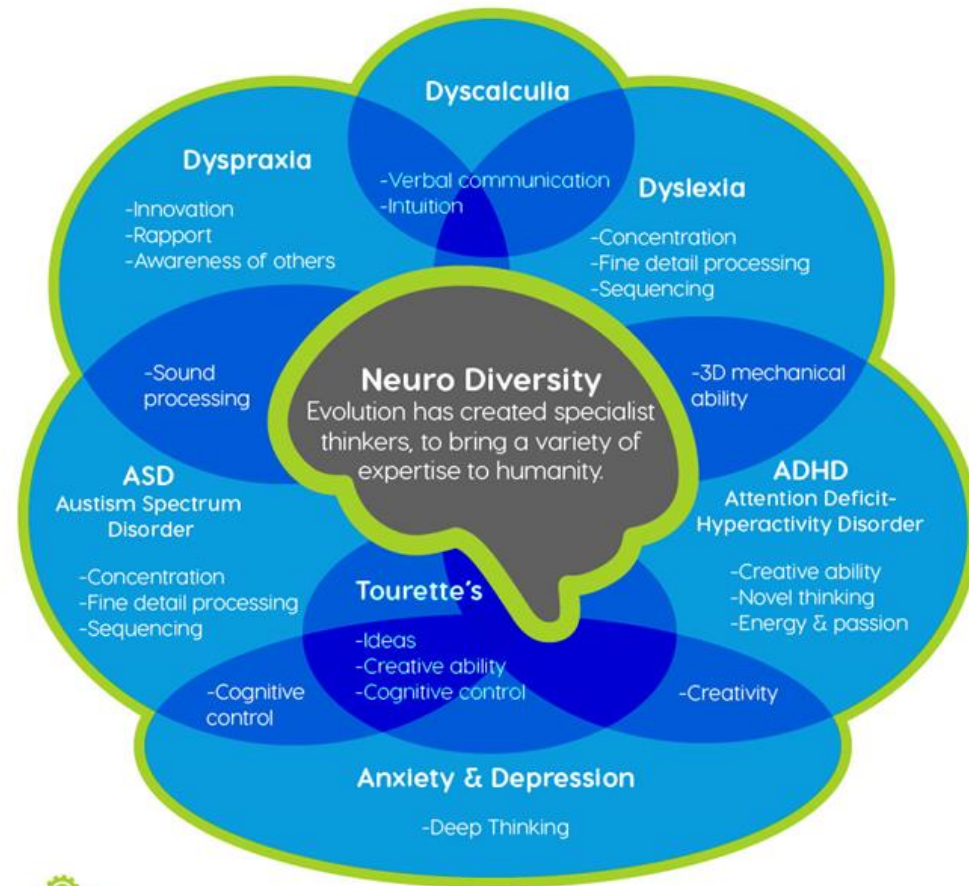
# NEURODIVERSITY

The concept of neurodiversity provides a paradigm shift in how we think about mental functioning.

Instead of regarding large portions of the American public as suffering from deficit, disease, or dysfunction in their mental processing, neurodiversity suggests that we instead speak about differences in cognitive functioning.



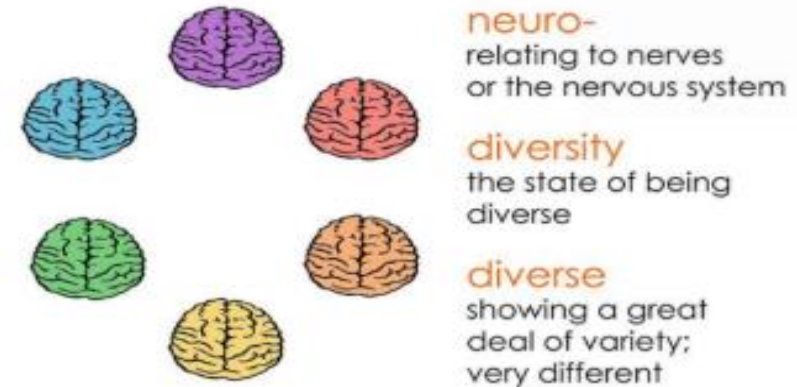
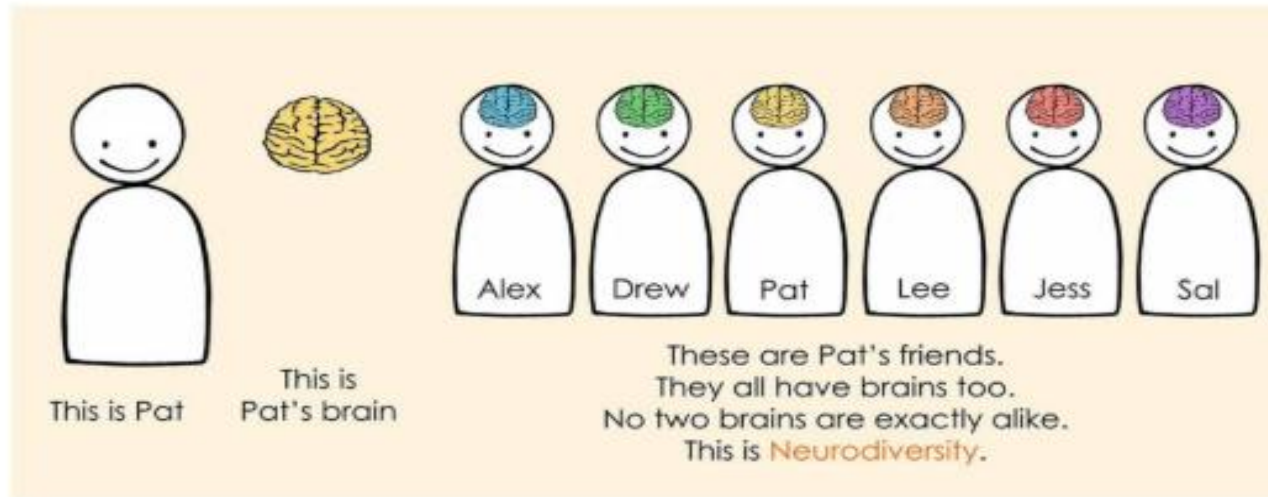
# WHAT IS NEURODIVERSITY



- The term originated back in the late 1990's in reference to individuals with autism (ASD).
- The term has since expanded to include a broader range of neurological-based conditions such as; learning differences, (e.g. Dyslexia, ADHD, ASD) and mental disorders (e.g. anxiety, mood disorders, depression, bipolar), TBI's and other conditions.
- Neurodiversity asserts that atypical neurological development is a normal human difference that is to be tolerated and respected as any other human difference.



# What is Neurodiversity?



Some people's brains are similar enough that they behave in ways that are categorised and labelled. Some of these labels are typical, schizophrenic, bipolar, autistic, and epileptic.

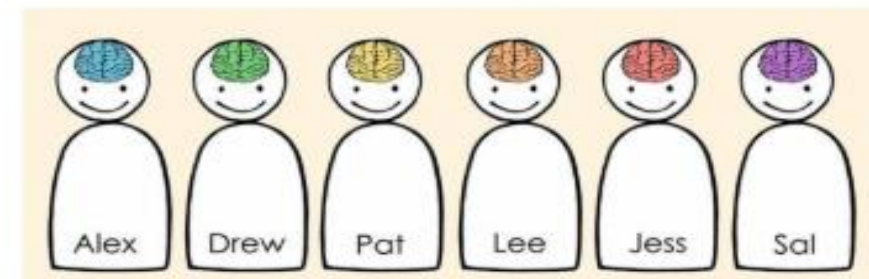


All of these labels (except "typical") indicate neurodivergence, that is, a deviation of a brain from society's expectation of normality



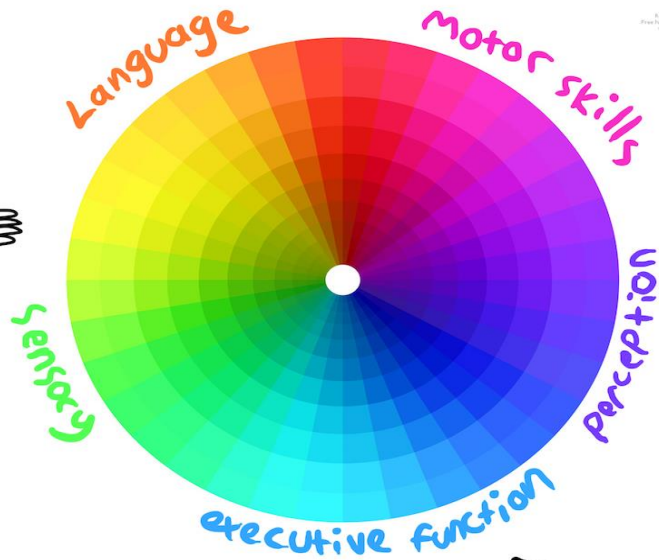
Not all neurodivergence is diagnosed, or even diagnosable. This means that not all people who are perceived as neurotypical are in fact so.

Neurodivergence is neither "good" nor "bad." A person can be born with it, or it can be acquired. It is up to each neurodivergent individual to decide what help they desire.



Pat and friends are comfortable with their individual divergences and their diversity as a group. They support each other's rights to self-determination, and they value the strengths they each bring to their group of friends.

The truth is though, someone who is neurodiverse in some areas of their brain, will also be no different to your average person in other areas of their brain.



You see, the autistic spectrum looks something more like this.





# NEUROLOGICAL VARIATIONS







- Social and Communication
- Cognition – Thinking
- Executive Functions
- Emotional Response
- Information Processing: auditory, verbal and sensory
- Motor skills

## Neurodiversity is about abilities being out of balance

Whilst neurodiverse people may struggle with:

-  Organisational skills
-  Planning and prioritising
-  Time keeping
-  Background noise

They may be brilliant at:

-  Connecting ideas
-  Thinking outside the box
-  3Dimensional thinking
-  Seeing the big picture



### Neurodiversity is not tied to IQ

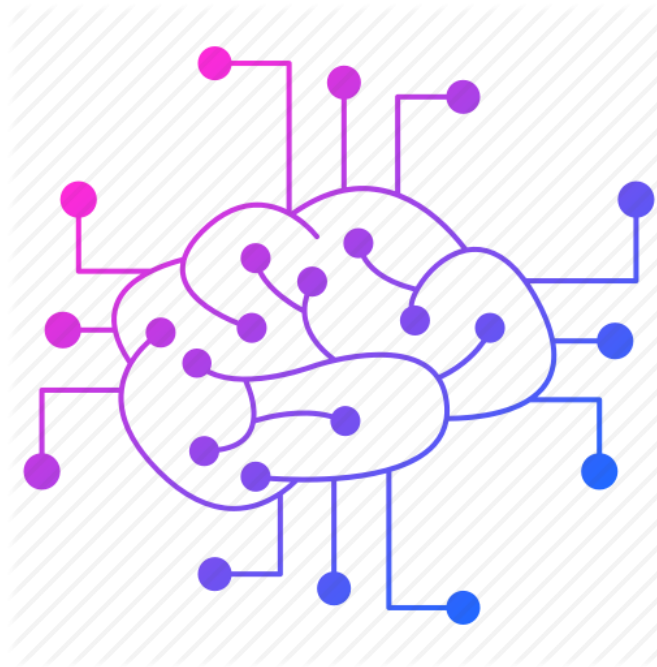
Overall IQ can be anywhere in the range. The key difference is the spikes in the profile

# UNEVEN ABILITIES

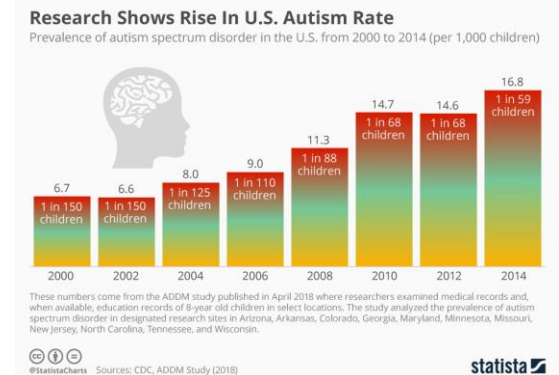


# NEURODIVERSITY A GROWING POPULATION

- In the past 60 years the number of categories of psychiatric illnesses has tripled.
- 1 in 5 students age 13-18 live with a mental health condition and 50% of the US adult population is projected to be diagnosed with a mental health condition by age 40.
- 1:59 are diagnosed with ASD (Autism Spectrum).
- 6.1% of children are being treated for ADHD and 4.4 % the adult population has been diagnosed with ADHD.
- 1 in 5 children in the US have learning or thinking differences.
- 1 in 16 public school students have IEP's for learning or other health issues.

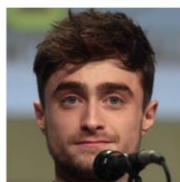


1 in 5 U.S. adults experience mental illness each year  
1 in 25 U.S. adults experience serious mental illness each year  
1 in 6 U.S. youth aged 6-17 experience a mental health disorder each year  
Suicide is the 2<sup>nd</sup> leading cause of death among people aged 10-34





### Celebrities who are Neurodiverse



Daniel Radcliffe  
Dyspraxia

### Celebrities who are Neurodiverse



Britney Spears  
ADHD and Dyslexia

### Celebrities who are Neurodiverse



Steven Spielberg  
Dyslexia

### Celebrities who are Neurodiverse



Tom Cruise  
Dyslexia



Nikola Tesla  
Autism



Daryl Hannah  
Autism



Temple Grandin  
Autism

### Celebrities who are Neurodiverse



Sir Richard Branson  
Dyslexia

### Celebrities who are Neurodiverse

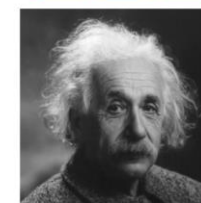


Ryan Gosling  
ADHD



Satoshi Tajiri  
Autism

### Celebrities who are Neurodiverse



Albert Einstein  
Autism and Dyslexia

### Celebrities who are Neurodiverse



Zayn Malik  
ADHD

### Celebrities who are Neurodiverse

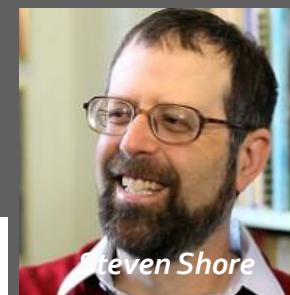


Dan Aykroyd  
Tourette's Syndrome

### Celebrities who are Neurodiverse



Adam Levine  
ADHD



Steven Shore



Isaac Newton

Autism



Ido Kedar  
Autism

### Celebrities who are Neurodiverse



Tim Howard  
Tourette's Syndrome

### Celebrities who are Neurodiverse



Whoopi Goldberg  
Dyslexia

### Celebrities who are Neurodiverse



Scott Kelly  
ADHD

### Celebrities who are Neurodiverse



Bill Gates  
Dyscalculia

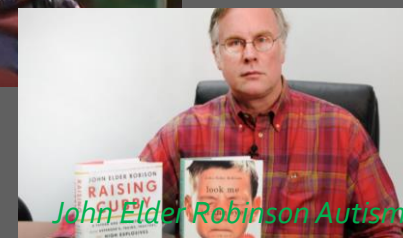


Jerry Seinfeld  
Autism

### Celebrities who are Neurodiverse



Steve Jobs  
Autism



John Elder Robinson  
Autism

GREAT INNOVATION AND CREATIVITY COMES FROM DIFFERENTLY WIRED BRAINS



### what is a "model" of disability?

In this case, "model" means a certain way of thinking about disability.

### what is the Social Model of Disability?

To understand this concept, it's useful to compare it to the "medical model" of disability.

## Medical Model

vs

## Social Model



The person is disabled by the abnormalities and deficits of their own body and/or brain.



Disabled people are broken, abnormal, or damaged versions of human being and should be fixed, cured, and/or prevented.



Since the disabled person's impairments prevent them from functioning normally, they need caregivers and professionals to make decisions for them. The disabled person is an object of charity and receiver of help.



The disabled person should adjust to fit into society, since they are the one who is not normal. Being part of society means rising above disability.



The person is disabled by their environment and its physical, attitudinal, communication, and social barriers.



Disabled people are normal, valid varieties of human being and should have equal rights and access to society, just as they are.



Since the disabled person is inherently equal, they have a right to autonomy, choice, and free and informed consent in their own lives.



The disabled person should be supported by society, because they are equal and have a right to inclusion. Their community should adjust its own barriers and biases.

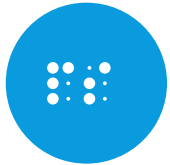
# A DIFFERENT PERSPECTIVE ON DISABILITY



Learn about neurodiversity and brain-based differences.



Simplify access to information, programs, services.



Accept differences and stop trying to fix them.



Align programs and services around individual needs versus a diagnosis or label.



Support and accommodate differences versus fix behaviors.



Embrace a growth mindset to facilitate individual growth.



Treat the whole person, not just a group of symptoms or conditions.



Adopt best practices to affirm strengths and support individualized needs.



Increase collaboration across the system of care.



Enable individuals to work in their strength zones.

# NEURODIVERSITY AND INCLUSION



# RETHINKING EDUCATION

Figure 1. A Tale of Two Special Education Paradigms

	Elements of Deficit-Based Special Education	Elements of Strengths-Based Special Education (Grounded in Neurodiversity)
<b>Focus</b>	Disability	Diversity
<b>Assessment methods</b>	Testing to detect deficits, disorders, and dysfunctions	Assessing strengths and challenges
<b>Instructional approaches</b>	Remediating weaknesses	Building on strengths and using them to overcome challenges
<b>Theoretical foundations</b>	Genetics, neurobiology	Evolutionary psychobiology, social and ecological theory
<b>View of the brains of students with special needs</b>	In many cases, the brain is seen as damaged, dysfunctional, or disordered	Part of the natural human variation of all human brains
<b>Program goals</b>	Meeting instructional objectives	Developing human potential
<b>Student goal</b>	Learning to live with your disability	Learning to maximize your strengths and minimize your weaknesses
<b>Student self-awareness</b>	Explaining students' disabilities to them using machine-based metaphors	Helping students value their diverse brains using growth mindset, neuroplasticity, and "brain forest" metaphors

# INCLUSIVE EDUCATION

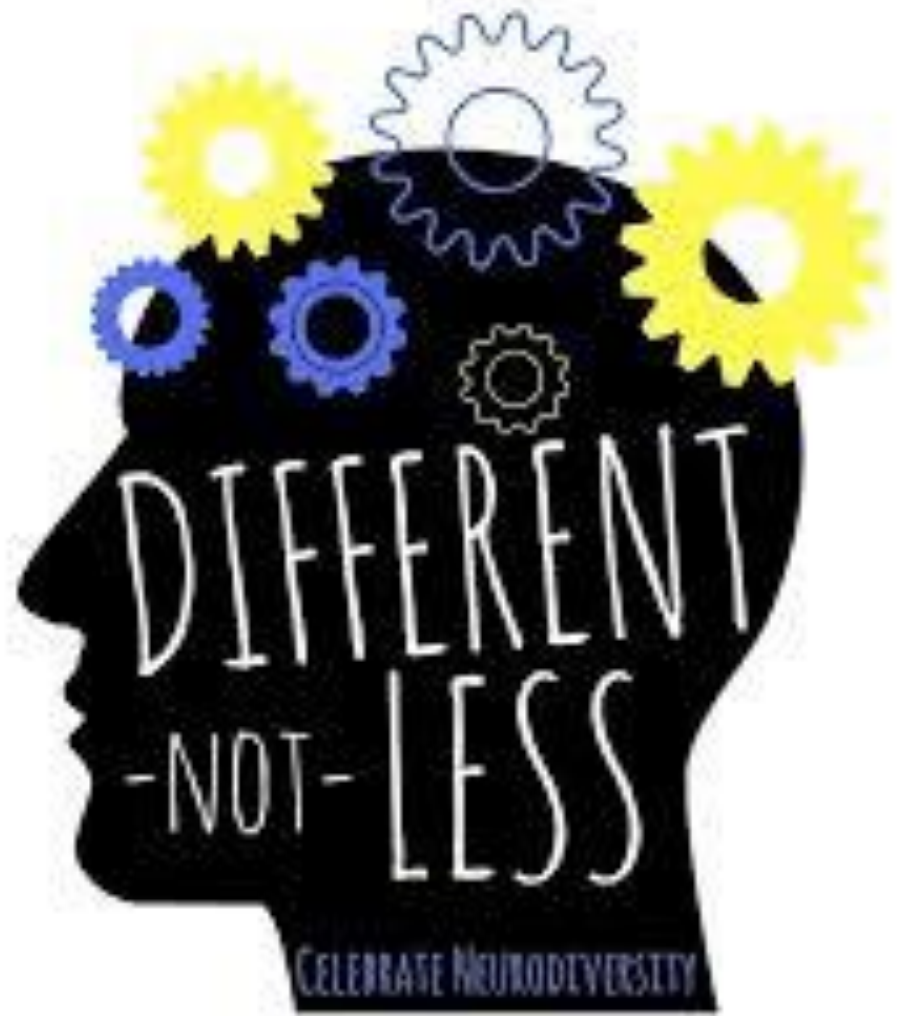
- Modify recruiting and hiring practices
- Offer more flexible work options/schedules
- Make environmental modifications
- Provide access to tools/technologies work productivity
- Workforce neurodiversity education
- Content accessibility (UDL compliant)
- Access to coaching and mentors
- Job carving to align to employee strengths

# INCLUSIVE WORKPLACE

- Use thoughtful and respectful language
- Identify and acknowledge potential unconscious bias
- Ask questions, make no assumptions and *LISTEN*
- Just because you can't see someone's differences/disabilities doesn't mean they don't exist
- Simplify processes and systems wherever possible
- Provide information in multiple formats
- Value diversity – it enriches our lives
- Create supportive environments

# INCLUSIVE COMMUNITIES





NEURODIVERSITY  
ENRICHES OUR  
COMMUNITY

# NEURODIVERSITY TERMINOLOGY

**Neurodiversity:** the biological reality of infinite variation in human neurocognitive functioning and behavior, akin to biodiversity in the natural world. The term is now being used to describe the fast-emerging sub-category of workplace diversity and inclusion focused on including neurodivergent people.

**Neurodiversity paradigm:** a perspective on neurodiversity that suggests neurodiversity is a result of natural human variation, at that there is no one “normal” brain type. Stands in contrast to the highly medicalized perspective that views Autism, ADHD, and others as disorders to be treated.

**Neurodivergent:** having cognitive functioning different from what is seen as “normal”. Neurodivergence can be genetic, innate or acquired (brain trauma)

**Neurodivergence:** state of being neurodivergent. It's worth noting that a common misuse of language is to talk of 'an individuals neurodiversity' versus an individuals neurodivergence.

**Neurodiverse:** this term is often used instead of 'neurodivergent' yet is potentially problematic. A group can be neurodiverse – an individual is better described as neurodivergent.

**Neurominority:** a group such as people with autism or dyslexia, that share similar innate brain variations. There is significant variation within each neurominority.

**Neurotypical:** given the biological fact that there is no such thing as a “normal” brain, neurotypical is best thought of as 'not neurodivergent' – that is, with parameters of neurocognitive style that have not been either medically defined as 'disorders' or culturally defined as 'neurodivergent'. It's important not to draw simple lines in the sand between 'neurotypicals' and neurodivergent people – human neurodiversity is a highly complex spectrum, in which everyone sits.

# THANK YOU

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